Project 1, Milestone 2 – Multicore scaling studies

# Details of processors:

I am using midways2, the information is showing below:

Table

Description automatically generated

# Get the same anwer:

I use the following arguments:

N = 100 (Matrix Dimension)

NT = 10000 (Number of timesteps)

L = 1 (Physical Cartesian Domain Length)

T = 1e+06 (Total Physical Timespan)

u = 5e-07 (X velocity Scalar)

v = 2.85e-07 (Y velocity Scalar)

I used the FileMerge to compare the results of parallel and serial versions, which shows that 0 differences.

Table

Description automatically generated

# plot of a strong scaling

processor: midway2

compiler: g++

# plot of a weak scaling

processor: midway2

compiler: g++